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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,709	04/01/2002	Dirk Pophusen	Mo-7058/LeA 34,016	2725
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BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205				
EXAMINER HAMPTON HIGHTOWER, PATRICIA				
ART UNIT		PAPER NUMBER		
1711				

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/089,709

Applicant(s)

POPHUSEN ET AL.

Examiner

Patricia Hightower

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 10, 12-16 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10, 12-16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Response to Amendment***

In view of the applicant's amendment response filed September 29, 2003 the rejection of claims under 35 USC 102 (b) as anticipated by Onishi et al (USP 5,674,952) and Sayed et al (USP 5,605, 945) have been withdrawn because the references do not teach using the polyamide resin composition in a thermoforming process to fabricate or produce an article.

However, the claims are subjected to a new ground of rejection under 35 USC 103 rejections as being obvious over Sayed et al (USP 5,605,945) in view of Dykes et al (USP 4,845,168 –newly cited and of record).

The cancellation of claims 1-9, 11 and 17-18 is acknowledged; claims 10,12-16 and 19-22 are presently pending.

***35 USC 103 Rejection***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 12-16 and 19-22 are newly rejected under 35 U.S.C. 103(a) as being unpatentable over Sayed et al (USP 5,605,945) in view of Dykes et al (USP 4,845,168 - newly cited and of record).

Sayed et al (USP 5,605,945) discloses a glass fiber-reinforced polyamide compounds with increased viscosities and favorable thermal and mechanical properties during compounding comprising a mixture of

A) 79 to 47% by weight of a thermoplastic partly crystalline polyamide (e.g., preferably polyamide 6, polyamide 66, etc.);

B) 0 to 50% by weight of reinforcing materials (e.g., glass fibers, carbon fibers, mineral fibers, surface treated fillers, etc.,)

C) 0.1 to 4% by weight of diepoxide;

D) 0.1 to 2% by weight of processing additives (e.g., lubricants, heat stabilizers, nucleating agent and colorants (pigments or dyes)); not only do these polyamide compounds reach the required viscosity during compounding, they can also be processed very effectively by injection molding, gas injection and extrusion and extrusion and extrusion blow molding by virtue of their broad processing window and the thermal stability of the melt. The stability of the melt and the very good weldability of extruded or injection-molded parts by the hot element, heat sealing, vibration or high-frequency process. See col. 2, lines 8-27; 28-31, 32-34, 38-42, 43-52, 53-55; col. 1, lines 8-17, 61-67: abstract, the examples; claims 1-2.

However, the reference differs is not teaching the technique of thermoforming to produce or fabricate a molded article; using the polyamide compounds that substantially meet the instantly claimed reinforced polyamide resin molding composition. Although the patent is silent as to the instantly claimed resin composition having a viscosity greater than  $1000\text{s}^{-1}$ , at a processing temperature that is 40 to  $80^{\circ}\text{C}$  above the melting point of the molding composition or the viscosity greater than 1500 pas at shear viscosity of  $10\text{s}^{-1}$  and is less than 280 pas at shear viscosity of  $1000\text{s}^{-1}$ . Silence does not preclude the

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polyamide compounds/mixture from possessing said characteristics/properties since they are viewed as being of the same or similar (structural) identity.

Dykes et al (USP 4,845,168 newly cited and record) discloses a process for the fabrication of a polyamide (e.g. polyhexamethylene adipamide-nylon 66 and polycaprolactam-nylon 6) articles from a composition of a linear aliphatic polyamide 0.01-5% by weight of an epoxide and a 0.005-1% by weight of catalyst; wherein the composition may be used in the formation of film by a blown film process, the blow moulding of bottles, thermoforming processes or the like. See col. 2, lines 1-22, 54-68; col.1, lines 5-8,9-16, 60-68, col. 3, lines 12-14, 15-20, 21-34,56-66; col. 4, lines 2-34, 38-45, 46-61; example I – VII.

The patentee teaches at col. 4, lines 27-61 in the process the admixture of polyamide, epoxies (equivalent to the instantly claimed branching agent) and catalyst are fed to a melt processing apparatus and admixed therein at a temperature above the melting point of the polyamide and above the temperature of reaction of epoxide and polyamide. If it is possible, to admit above the melting point of the polyamide but below the reaction temperature and then raise the temperature of the resultant admixture so as to effect reaction. Subsequently the resultant composition is extruded from the extruder. The extrudate may be in the form of an article, but it is preferred that it is in the form of pellets, granules or other comminuted shapes. The composition, including the admixture fed to the melt processing apparatus, may contain additives, e.g., antioxidant, ultraviolet stabilizers, pigments, fillers, toughening agents and the like, as are known for use with polyamides.

It would have been obvious to one of ordinary skill at the time the invention was made that the polyamide molding compositions as taught by Sayed et al could have been fabricated into a molded article by a thermoforming process as taught by Dykes et al; thereby arriving at the invention as claimed; since Dykes et al teaches thermoforming a polyamide composition.

### ***35 USC 112 Rejection***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10, 12-16 and 19-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 19 lines 3-5, the limitation "the composition characterized in that its viscosity is greater  $1000\text{ s}^{-1}$ , at a processing temperature that is 40 to  $80^{\circ}\text{C}$  above the melting point of the molding composition", is considered to be new matter because the specification as originally filed, does not provide support for the invention as is now claimed. At page 2, lines 27-28 of the Instant specification discloses the limitation --and at a shear velocity of  $1000\text{ s}^{-1}$  is less than 300 Pas at a processing temperature of 40 to  $80^{\circ}\text{C}$  above the melting point of a moulding composition.

### ***Obviousness-type Double Patenting Rejection***

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10, 12-16 and 19-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/349,360. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are claiming overlapping subject matter; a method of using a reinforced molding polyamide resin Compositions to fabricate an article by thermoforming wherein the molding compositions utilized have overlapping reactants; wherein it is viewed that one set of claims cannot be infringed without literally infringing those of the other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kitanaka is cited to show the state of the art of a method for producing thermoplastic resin molding articles and Joachimi is cited to show the state of the art of impact-resistant modified polyamide molding composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia Hampton Hightower whose telephone number is (571)272-1073. The examiner can normally be reached on M-F from 9:30 A.M - 6:00 P. M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

P. Hightower/af  
February 12, 2004



P. Hampton-Hightower  
Primary Examiner  
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